

4th July 2016

Mr. S. Jones
D. S. Jones & CO.
26, Prospect Drive
Coedpoeth
Wrexham
LL11 3PE



Dear Steve,

**LAND AT BEDWELL ROAD, CROSS LANES, WREXHAM
FLOOD CONSEQUENCE ASSESSMENT & DRAINAGE MANAGEMENT STRATEGY**

I have the pleasure of providing our fee proposal to undertake the Flood Consequence Assessment & Drainage Management Strategy, as requested. I have undertaken some brief research and believe I have allowed for all necessary items within our quotation.

Flood Consequence Assessment & Drainage Management Strategy – £2,800 plus VAT

Flood Risk Outline Assessment and Situation

Review of the Welsh Government's Development Advice Map identifies the development area to lie partially within zone A and C; Natural Resources Wales Flood Map indicates that the site is located within Flood Zones 1, 2 and 3. The emphasis of the Flood Consequence Assessment will be on the potential flood risk from the adjacent watercourse as well as effective management of surface water run-off generated by the development proposals.

Flood Risk Approach

Our initial approach will be to review the data Natural Resources Wales may hold regarding historical flooding and adjacent water levels information. The cost of purchasing the NRW data is included within the above fee proposal. We will also consult with Wrexham County Borough Council and Welsh Water.

The FRA will review all forms of flood risk and will advise on the appropriate mitigation measures and aim to achieve the NRW/LLFA/LPA development requirements.

Please note that the fee proposal for the preparation of the FCA does not include for any river modelling; should the NRW or LLFA request this be undertaken then we can provide this service for an additional fee.

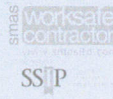
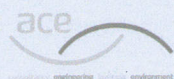
Scope of works

The Flood Risk Assessment will include the following:

-  Review of available data
-  Liaison and initial enquiries with the Natural Resources Wales, Wrexham County Borough Council and Welsh Water
-  Purchase of WW sewer records

Cont.

Old Marsh Farm Barns
Welsh Road, Sealand
Flintshire CH5 2LY
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- Review of the Preliminary/Strategic Flood Consequence Assessment
- Pre-development assessment of the drainage characteristics of the site
- Assessment of the existing site flood risk mechanisms both to and from the site
- Identification of development constraints as a result of flood risk and possible mitigation measures
- Post-development assessment of drainage options, impacts and recommendations for mitigation
- Stormwater storage estimates using Microdrainage (Quick Storage Estimates)
- Assessment of suitability for the application of Sustainable Drainage Solutions (SuDS)
- Assessment of suitability for infiltration drainage solutions
- Assessment of suitability for surface water connection to watercourse
- Assessment and pre-development enquiry for SW/FW connections to the public sewer network
- A comprehensive assessment of SuDS opportunities with typical construction detail drawings indicating various options (where appropriate)
- Production of a Flood Consequence Assessment & Drainage Management Strategy report to assist with allocation for residential development

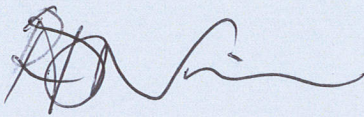
Please note that the findings and conclusions of an FCA are not always supportive of the development proposals and we will advise if this is likely to be the case as the project progresses to allow opportunity for the proposals to be adapted to reflect the findings of the FCA.

The report will be provided in PDF format electronically; should hard copies be required these can be provided at cost.

In the absence of any formal appointment documentation our services are offered in accordance with the attached terms & conditions and ACE Agreement 1: Design 2009 Editions, 2nd Revision & Agreement 2: Advisory, Investigatory and other services 2009 Edition, 2nd Revision.

I trust you will find the above of assistance, however, if you have any queries or require further information please do not hesitate to contact me.

Yours sincerely,



Richard Nicholas BEng (Hons) MBA
Director
BETTS HYDRO

Enc. Terms of Business

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Flintshire CH5 2LY
Telephone: 01244 289 041

Project Management Plan

Land at Bedwell Road, Cross Lanes, Wrexham

Ref.: HE0108



Client: D. S. Jones & CO.
26, Prospect Drive, Coedpoeth, Wrexham,
LL11 3PE.
Billing address (if different): -

Primary contact: Steve Jones
Postal address: As client
Telephone no.: 01978 750195
Mobile no.: 07880 874522
Email: DSJonesandCo@live.co.uk

Project Description

Flood Consequence Assessment & Drainage Management Strategy Report

Method Statement

Request NRW and consultee historical flooding data

Prepare site specific FCA and DMS for the proposed development in accordance with PPW and TAN15 requirements.

Information Required

Development proposals plans, Topographic survey (CAD/PDF format)

Output Format

1no. report will be provided, electronically entitled FRA & DMS in PDF for submission of planning application

Programme and Delivery

Upon receipt of an instruction we can provide a report in approximately 4-5 weeks to incorporate the consultee responses; however this could be expedited if required. FCA & DMS could be prepared whilst we await consultation responses and updated to reflect in due course. EA data response times can be up to 20 working days and are usually the biggest constraint on the timeline and delivery.

Payment Details

Estimated fee for the above works: **£2,800 plus VAT**

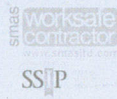
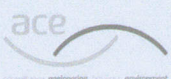
The amount shown excludes VAT

100% payment following preparation of draft, prior to issue of final outputs

Invoicing Instructions: Invoice client direct at postal address above

Continued overleaf...

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The project plan is a summary of the works to be completed and is not necessarily exhaustive.

The person named above as the Primary Contact is an employee or agent of the Client and is authorised to accept the Terms and Conditions herein and enclosed on behalf of the Client.

I confirm authorised to accept the Terms and Conditions herein and enclosed on behalf of the Client

Signed Date Name

Betts Hydro Limited – Old Marsh Farm Barns, Welsh Road, Sealand, Flintshire, CH5 2LY.

☎ 01244 289041 ✉ richard.nicholas@betts-associates.co.uk

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